

ABSTRACT OF THE DISCLOSURE

BOREHOLE LOGGING APPARATUS FOR DEEP WELL DRILLING

5 The invention is directed to a borehole logging apparatus for deep well drilling,
with a signal transmitter for transmitting measured data obtained while drilling from a
borehole through the drilling fluid to the earth's surface, and with an elongated housing
which is adapted for insertion in the drilling fluid conduit of a drill string. Accommodated
in the housing is a flow regulator with a control piston, which controls the cross-section
10 of opening of a bypass opening in response to the pressure differential generated by a
flow restrictor and in response to the force of a spring in such manner that the part of the
drilling fluid current fed to the signal transmitter through the flow restrictor is maintained
substantially constant, and the remaining excess drilling fluid current is routed to the
drilling fluid conduit via the bypass opening.

15